

NOTES ON *CICINDELIDÆ* AND *CARABIDÆ*, AND DESCRIPTIONS  
OF NEW SPECIES (No. 18).

BY H. W. BATES, F.L.S., &c.

Sub-family SIAGONINÆ.

*COSCINIA PICTULA*, *sp. n.*

*C. fuscigeræ* (Chaud.) *affinis*. *Parva, setosa, nitida, nigra, punctata; elytris fascia basali maculaque suturali-apicali sanguineis; palpis, labro pedibusque fusco-fulvis; antennis castaneis.* *Long. 2 lin.*

Of the flattened form of *C. Semelederi*, but smaller, and the elytra distinctly punctate-striate, with a row of punctures down each interstice. In colour and size it approaches *C. fuscigera*, but the red colouring of the elytra consists of a broadish basal belt and an oval spot over the suture near the apex; a red sutural border sometimes connects the two, and the apical spot is also liable to be enlarged so as to extend to the margins. The head and thorax are covered with large separate punctures, and the dorsal line of the latter is very strongly impressed.

Mesopotamia; many examples.

*APOTOMUS XANTHOTELUS*, *sp. n.*

*A. rufo brevior et convexior; haud setosus; atro-fuscus, sub-nitidus; antennarum articulis duobus basalibus, pedibusque rufo-castaneis, illarum articulis quatuor apicalibus flavis; palpis fulvo-testaceis.*

*Long. 1½ lin.*

Dull blackish-brown; legs clear chestnut-red; antennæ with the two basal joints reddish and the four apical ones yellow. The elytra are more convex than in *A. rufus*, and rather more strongly punctate-striated, with narrower interstices. The body appears destitute of erect hairs.

Celebes (Wallace); two examples, in one of which the thorax is pitchy-red.

Sub-family SCARITINÆ.

*CARENUM PORPHYREUM*, *sp. n.*

*C. smaragdulo* (Westw.) *affine*. *Oblongo-ovatum, convexum; nigrum, nitidum, thorace latissimo, lute viridi-limbato; elytris late violaceis, viridi-marginatis, ovatis, lævibus, postice unipunctatis; tibiis anticis tridentatis.* *Long. 10 lin.*

Of the same form as *C. smaragdulum*. Anterior tibiæ with a well-developed third tooth, surmounted by two other denticulations. The

head is broad; the frontal furrows short, commencing on a level with the middle of the eyes, and slightly diverging posteriorly; the eyes less prominent than in *C. Odewahnii*. The antennæ are rather slender, the apical joints gradually tapering. The thorax is very broad, as in *C. Odewahnii*; the hind margin is not lobed, and distinctly trisinuate; it has a very broad light green border, the inner edges of which are violet. The elytra are elongate-oval, not narrowed to the base, nor depressed near the suture; the humeral angles have an elevated tooth; there is a row of four ocellated punctures on each side of the base, and one discoidal puncture behind, but no trace of sculpture on the surface, which is of a rich violet, shading into green in some lights towards the base and apex; the margins, including the broad epipleuræ, being golden-green. The sternal segments and sides of the abdomen are also green. The labial palpi have their terminal joint only slightly dilated.

West Australia.

CARENUM BREVIFORME, *sp. n.*

*Breviter oblongo-oratum, nigrum; thorace et elytris lateriviridi-limbatis, his disco violaceis, striato-punctatis, postice unipunctatis; capite magno, sulcis frontalibus brevibus parallelis; tibiis anticis tridentatis.*

*Long. 7½ lin.*

The terminal joint of the antennæ is short and ovate. The thorax is twice as broad as long; lunate, with prominent anterior angles, and a very short and rather narrow lobe in the middle of the base. The elytra are extremely short, ovate, convex; depressed at the suture, and with rows of shallow but large punctures, besides the single large discoidal posterior puncture; the borders are broadly emerald-green, and the disc violaceous near the suture and green borders. The underside is black. The anterior tibiæ have three distinct teeth and two denticulations.

West Australia.

CARENUM SUBPLANATUM, *sp. n.*

*Cylindrico-oblongum, nigrum, nitidum; elytris oblongo-oratis, convexis, dorso planatis, postice bipunctatis, nigro-violaceis; thorace paulo transverso; capite post oculos transversim impresso, sulcis frontalibus paulo obliquis; labro antice recto; tibiis anticis bidentatis.*

*Long. 7½ lin.*

A species approaching in some of its characters *Eutoma* and *Carenidium*, but having the moderately dilated labial palpi and narrowed

apical antennal joint of *Carenum*. In form it most nearly resembles *C. Bonellii*, but it is rather narrower, and the elytra are more rounded at the shoulders and distinctly flattened for a considerable breadth on each side of the suture, the limits of the flattening being distinctly marked. The head is similar in form, but presents several striking points of difference; the transverse depression behind the eyes is deep and continuous right across; the eyes are much less prominent; the lobes of the clypeus in front of the eyes are not distinctly grooved, and lastly, the labrum is straight, or even somewhat emarginate, in front, with a row of distinct large punctures. The maxillary palpi have their terminal joint nearly linear. The elytra have no trace of sculpture beyond the posterior fovea and a cluster of ocellated punctures at the base, lying in irregular depressions, with the usual marginal punctures. The margins are thickened near the apex.

Nicol Bay; West Australia.

CARENUM PLANIPENNE, *sp. n.*

*Elongatum, parallelum, depressum, elytrorum dorso late fortiter planato; nigrum, nitidum, thoracis marginibus angustis elytrisque omnino smaragdinis; capite lato, rotundato; sulcis frontalibus longis, fortiter curvatis; oculis haud prominulis; thorace paulo transverso, basi lobato; elytris humeris elevato-dentatis, postice bipunctatis; tibiis anticis bidentatis.*

*Long. 10 lin.*

The head resembles much that of *Carenidium*, to which genus the species would belong, were it not that the labrum is not emarginated, but trisinate, and approaching that of the typical *Carena*. The labial palpi, too, are not so strongly dilated as in *Carenidium*; but the maxillaries are more dilated than in *Carenum*. The species, therefore, is a connecting link between the two genera. The body is elongate, parallel-sided and depressed, with the elytra flattened for a broad space on each side of the suture; the colour is olive-black, with the margins of the thorax and the whole elytra clear green, the colour being duller along the centre of the latter. The antennæ are slender, with the apical joint tapering, and the sides of the joints only densely pubescent. The frontal furrows are curved, and so strongly impressed that the lateral intervals resemble orbits, and the eyes are not prominent. The thorax is a little broader than long, parallel-sided until near the base, where it is sinuate-angustate to the distinct basal lobe. The elytra are retuse at the base, with rather advanced and dentate shoulders, the lateral margins are thickened as in *Eutoma*; the surface

is smooth, and there is a row of three or four ocellated punctures at the base. The metasternal episterna are very short. The ventral segments have each two punctures.

Nicol Bay; West Australia.

NEOCARENUM CYLINDRIPENNE, *sp. n.*

*N. elongato angustior; nigrum, nitidum; elytris quam thorace multo angustioribus, omnino transversim rugosulis, punctis ocellatis submarginalibus seriatim ordinatis.*

*Long. 11 lin.*

Apparently closely allied to *N. rugosulum*, W. McLeay, but differs in the frontal furrows being remarkably deep, *N. rugosulum* having "capite leviter bisulcato;" and also in the absence of all trace of elytral striæ. The head is similar to that of *N. elongatum*, the frontal furrows being deep, strongly flexuous, widely divergent behind, and connected at their ends (on a level with the posterior margin of the eyes) by a transverse furrow. The eyes are enclosed behind by a thin orbit, which does not project beyond them. The surface of the head is smooth and shining. The thorax does not differ from that of *N. elongatum*. The elytra are much narrower than the thorax, nearly cylindrical, very slightly narrowed to the base, with the humeral angles scarcely advanced, and the suture not depressed; the whole surface is covered with short and very irregular shallow wrinkles, coarser near the sides, where they obscure the sub-marginal row of large ocellated punctures. The anterior tibiæ are bidentate, the middle tibiæ unispinose; the suture between the second and third ventral segments quite obliterated in the middle. The antennæ are glabrous, with the fifth to eleventh joints coarsely punctured and pubescent on their edges; the terminal joint tapers to the tip.

West Australia.

NEOCARENUM RETUSUM, *sp. n.*

*Elongatum, latior, minus convexum, nigrum, subtilissime coriaceum, vix nitidum; elytris basi valde retusis, humeris sub-fuleatis, punctis submarginalibus nullis; tibiis anticis extus tridentatis, subtus valde dentatis, intermediis bispinosis.*

*Long. 11½ lin.*

The head in this remarkable species resembles that of *N. elongatum*, with the exceptions that the lateral lobes project much more, and are more angular in front of the eyes, and that the posterior orbits project beyond the eyes; the frontal furrows are similar, but the transverse furrow behind continues laterally to the hind margin of the eye. The antennæ are still more glabrous, and the joints 5—11 have strong punctulated grooves on their edges. The thorax is rather shorter and broader, with rectangular anterior angles, and neither an-

terior nor basal fovea. The elytra are as wide as the thorax, very obtusely rounded and abruptly declivous at the tip, depressed on the back and broadly retuse-concave at the base, with projecting shoulders, the tooth of which is somewhat curved laterally as well as upwards; they are uniformly and minute coriaceous, without the usual large punctures. The anterior tibiæ have three teeth, and the usual denticulations on the carina beneath are enlarged into two broad conspicuous teeth. The middle tibiæ have two long and strong spines. The metathoracic episterna are very remarkably small and rounded. The maxillary palpi are very slightly dilated (labials wanting).

Nicol Bay.

*EUTOMA CAVIPENNE, sp. n.*

*Gracile, angustum, nitidum; capite valde exserto, ovato, oculis nullo modo prominulis; thorace nigro, late viridi-marginato; elytris dorso valde depressis, levissimis, impunctatis, violaceis, marginibus (basi et apice dilatatis) viridibus.*

*Long. 7 lin.*

The head is very different from that of *E. tinctilatum* and *splendidum*; the eyes being flat or even sunk, so that the form is ovate, broadest before the eyes and gradually narrowed behind to the thorax; the space between the exterior teeth of the epistoma is narrow and deeply concave; the frontal furrows are narrow, flexuous, scarcely divergent, and do not reach the level of the hind margin of the eyes; the surface is glossy, smooth and black, with the sides of the neck violet or blue. The thorax is rather smaller and narrower than the head; black, with broad brilliant green border. The elytra are of the width of the thorax, and about as long as head and thorax taken together; they have a small triangular emargination at the base of the suture, and a broad concave depression down the middle; there is no trace of striæ or punctures; the usual ocellated points on each side of the base are one, or (sometimes) two, very large, and the marginal punctures are also large and widely separated: the colour of the whole disc is rich violet, with brilliant green basal, apical and lateral borders, but sometimes the green borders are much wider. The under-surface and legs are shining black.

West Australia.

*CARENIDIUM SAPPHIRINUM, sp. n.*

*C. gurgulino brevior, magis orutum; convexum, nitidum, late cæruleo-violaceum, marginibus viridibus; subtus viridicæneum; capite alutaceo; thorace transverso, rotundato, basi lobato; elytris ovalis, subtilissime punctulato-striatis.*

*Long. 12 lin.*

Head very similar to that of *C. gaganinum*, frontal sulci very deep, widely divergent behind and extending much beyond the eyes, the latter prominent but encased behind in wide orbits; labrum deeply emarginated in a curve. Thorax much shorter than in *C. gaganinum*, and more regularly rounded; the middle of the base forms a distinct, short, truncated lobe. The clytra are ovate, with shoulders entirely effaced, convex on their surface, with lateral margins not at all thickened. The anterior tibiæ have two long teeth; the middle tibiæ one short spine.

Nicol Bay; West Australia.

#### TERATIDIUM, *g. n.*

*Corpus maxime elongatum. Palpi maxillares et labiales apice dilatissimi; caput rotundatum; sulci frontales rix impressi, brevissimi, postice convergentes. Tibiæ anticæ unidentatæ; intermediæ extus simplices. Elytra basi utrinque plicata, marginibus lateralibus incrassatis; disco impunctato. Metasternum brevissimum.*

The extraordinary insect for which this new genus is necessary, agrees with *Monoentrum* only in the absence of the usual tooth or teeth of the anterior tibiæ above the apical one; but the excessive dilatation of the terminal joint of the maxillary (as well as of the labial) palpi and the very short faint frontal grooves, form very distinct and peculiar characters. The head is broader than the thorax, rounded and obtuse in front; the four teeth of the clypeus are of equal size; the labrum bisinuate, prominent in the middle. The antennæ are naked, with a few large punctures on the margins of the joints. The eyes are large and prominent, encased behind in broad orbits. The thorax is much longer than broad, oblong, but narrowed behind and a little sinuate-angustate near the base. The clytra are cylindrical, but appear broadened behind, owing to the excessive thickness and width of the marginal rims, which, at the sutural apex, are overlapped by a lobular projection of each clytron; they are slightly narrowed to the base, which has on each side a transverse wheel, *posterior* to which is a depression containing eight or nine ocellated punctures, but the declivous base itself has no such punctures; the shoulders have a very projecting tooth, and the base at the suture is concave.

TERATIDIUM MACROS, *sp. n.*

*Nigrum, sub-nitidum.*

*Long. 13½ lin.*

To the above detailed generic description it may be added that

the marginal row of ocellated punctures is not on the extreme margin as in *Carenum*, nor moved towards the disc as in *Neocarenum*, but lies just above the marginal furrow. The ventral segments have no punctures, and the suture between the second and third is complete.

Nicol Bay.

Obs.—All the above new species of the *Carenum* group were obtained from the reserved collection of M. Du Boulay, in which they were nearly all represented by single specimens. From the same collection I obtained other species, allied to the common *C. marginatum* and *C. Bonellii*, but it is almost impossible to ascertain whether some of the numerous descriptions published by Mr. W. MacLeay and Count Castelnau do not apply to them.

Bartholomew Road, Kentish Town, N.W. :

July, 1874.

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ON A NEW FAMILY OF EUROPEAN AQUATIC COLEOPTERA.

BY D. SHARP, M.B.

Some few weeks ago I received a letter from Dr. Leconte, of Philadelphia, in which he enclosed two specimens of a minute Coleopterous insect. These two specimens had been captured by the late Mr. G. R. Crotch in Southern California, and Dr. Leconte specially directed my attention to them as being of great interest, inasmuch as he considered them to be representatives of a new family of Clavicorn *Coleoptera*. When the specimens reached me, they had unfortunately entirely lost their heads and thoraces; nevertheless, the insect interested me even more than Dr. Leconte had anticipated; for I felt sure, from the fragments that had reached me, that not only was it the representative of a new family of *Coleoptera*, but that that family was an inhabitant of Europe as well as of North America. I accordingly wrote to Dr. Leconte, informing him of the accident that had occurred to his specimens, and of my suspicion that an allied insect was a native of Europe, and, on receipt of my letter, he was so kind as to forward me two other specimens of his *Hydroscapha natans*, as well as a proof slip of his description thereof. I think it well to preface my observations on this insect by giving verbatim Dr. Leconte's description of it.

“HYDROSCAPHA, n. g. (*Hydroscaphidæ*), Leconte.

“Head moderately large, eyes lateral, coarsely granulated, somewhat transverse; antennæ scarcely longer than the head, inserted under the edge of the front, with seven distinct joints; 1st stouter, 2nd and 3rd each as long as the first, but narrower,